

CoPart



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The corporate world is governed by a number of laws, most of which the workers and students, who form an integral part of this world, are not aware of. We often hear about workers rights being violated and their being exploited, all of which could have been avoided had they been aware of these. These stories have motivated us to create this app, CoPart, to address these issues. We aim to help workers and students find all the requisite information to educate themselves on these laws and take a stand for themselves. We also aim at connecting people to mentors, who are more experienced individuals in the same field in order to make their future in their selected field as clear as possible.

1. INTRODUCTION

Most people in the country do not know about workers/students rights. Knowing about these is extremely important as they are a crucial part of work relationships and can prevent exploitation of workers. This gives rise to the idea of CoPart. People are exploited, made to work overtime, paid less etc and are not able to stand up for themselves because they don't know what is being done wrong. Using the product CoPart will minimize such problems in the industry. This product aims to be used by people working in the corporate world, students, people who lack the knowledge of laws and people looking to mentor and help others. Online communities and websites like Quora. These have a more generic approach while our project focuses on rights and laws. We hope to be able to provide clarity to people about their future in the field as well as empower them to be able to stand up for themselves by becoming aware of their rights.

2. METHODOLOGY

The process of creating the app involved several steps, starting with problem definition and going till evaluation. We have outlined these steps in this section.

2.1 Problem Definition and Identifying Target Users

Define the problem:

Most people in the country do not know about workers/students rights. Knowing about these is extremely important as they are a crucial part of work relationships and can prevent exploitation of workers. A large number of online platforms like this only focus only on making connections but the problem we are trying to solve is making people aware about how the whole system works and what their rights are. Many people do not know how to act or even talk in a workplace, let alone know how it works. By giving people the information and solving their doubts or problems we can make their work lives easier. Our project also includes finding mentors to guide people entering the corporate world. It is a daunting transition and people often feel lost while making it. By providing them with proper guidance and giving them the ability to converse with people who have been in the same field for years or talk to seniors openly, we can help them gain a lot of needed knowledge.

Background of the problem and Motivation:

There are several incidents that take place due to lack of awareness of rules and laws. People are exploited, made to work overtime, paid less etc and are not able to stand up for themselves because they don't know what is being done wrong. The seed of the problem is in our education in which we learn a lot of things but never how one is supposed to behave when they get older and are pushed into the society instead of welcomed. We do not have the luxury to question our seniors nor do we even have the sense of judgment between what's fair and what isn't. This is why we have decided to dedicate our time to the idea of CoPart. That is why we welcome teenagers who are curious about their future and workers who want to learn more. So that when their time comes they are ready, have been guided by trustworthy and credible mentors and are well aware of their rights.

Stakeholders and their role:

1. *People working in the corporate sector:* many employees are not aware of their rights and also they don't have any mentors who can help them or guide them in their field.
2. *People with adequate knowledge of laws:* they will help in adding to the ever increasing database of laws and increase the amount of information available to the users
3. *College students:* students willing to enter the corporate sector. They can ask their queries about

anything related to the corporate industry or their ongoing projects, seek guidance from people who have experience in their field. They can also get information regarding students rights.

4. *Mentors*: the certified people who can be hired as the experts for helping, giving advice, basically verified or benefiting replying to the posts

Other such existing products:

Online communities and websites like *Quora*. These have a more generic approach while our project focuses on rights and laws. The mentorship aspect is covered by websites like *LinkedIn*, *MentorCruise*, *Angellist* etc.

Limitations of existing products

As we all know the world is developing rapidly as well as the new jobs and job opportunities. But one thing people are deprived of is proper guidance and knowledge about their job and their job rights. When we look towards the products present to us at the given moment, we observe that they don't have expertise in such a sector. However, we can look at apps like LinkedIn and Quora (some of the well developed platforms available right now), they lack the motto of motivating people, helping them know their job rights and provide them with knowledge about job opportunities they might fill well in. Also the concept of mentorship is also lacking from such products.

How would our solution be novel:

This product "CoPart" is different from the rest available at the moment in so many ways. Our aim is to provide proper guidance to every age group be it a teenager or an experienced 15 years job person. We will help arrange for mentors, who may be guiding students in how to excel and get the placement they are aiming for, what all is going on in the job industry at the moment and what qualifications are paying more etc. We will be listening to the problems of working people and will be teaching them their job rights if any law is being violated. All in all we hope to enhance the work lives of people.

Challenges:

As we are on the initial steps of this project, the major concern we see ahead of us is hiring well educated mentors who are friendly, open minded and can easily communicate with others. Also we need to ensure the people using our product that their data is safe with us. We will also need a way to authenticate the information and make sure people do not get bombarded by irrelevant news and info. We need to create that good image in front of our users with great work and with this the trust will develop simultaneously.

2.2 Requirement gathering

In order to gather user requirements and collect data, we created a google form (available in Resources segment) and floated it in groups, asking students as well as job holders to fill it out. We took the required consent at the beginning. We also asked for volunteers who would be willing to give us interviews and took interviews of three job holders and four students. We have uploaded two of these interviews (available in Resources segment) as the rest did not consent to being recorded. The rights part of our project is more relevant for students who are about to enter the corporate world and workers while the mentorship part works for majorly students and people who are new to the field.

Rights

Overview/Analysis:

According to the responses, we have noticed that a majority of the population does not know about the laws but feels that information about these is important and could help avoid exploitation and give rise to a healthy atmosphere at their place of work/study. Most people say that they would use an app that provides this information to them at one place in a quick and concise manner. According to our findings, a major concern will be authenticating these laws and avoiding irrelevant information. Through our app, we aim to increase awareness about rights, laws and the periodic changes/ events regarding these and help workers as well as students get empowered and know what their rights are and when to act on them.

Question-wise analysis:

Q1: Are you aware of most of the basic rights applicable to you as students/ job holders?

According to the responses we got in the form, only 23.7% of the people were sure of these, with 42.4 % answering 'maybe' and the rest saying no. A similar trend was seen in the interviews, with almost all of the participants stating that they did not know as much about the rights as they would like to.

Q2: Are you able to stay up to date with the happenings in the professional world, especially those regarding your field of work?

According to the responses we got in the form, 39 % are not able to keep up at all while 28.8% are able to partially stay up to date.

Q3: Are you aware of all the new and changed rights post the consolidation of labour laws into the 4 labour codes (2021)?

This question was a part of our google form. Only 5.1% of the participants responded with 'yes' while 86.4% said 'no'.

Q4: Do you think making more people aware of these laws would lead to better workplace/college experiences and do you think exploitation of workers could be reduced/ lives positively impacted if people had greater access to such information?

All interviewees agreed that educating people would help enhance workplace/college experiences. An interviewee stated 'Until people are made aware of these rights, they cannot stand up for themselves and take the necessary steps to prevent their exploitation at the hands of their seniors or other authoritative figures.'

Q5: Tell us about an incident that could've been handled better with greater knowledge of these laws.

Most people mentioned incidents involving leave and work hours. Mr. Koley, a software engineer at TCS, talked about an incident where a friend of his was forced to work overtime without the requisite adjustment in pay. He believes that greater knowledge of these laws could've helped him avoid this.

Q6: What do you expect from an app/ site that claims to educate students and workers on their rights?

The major expectation included there being checks to make sure there is authenticated information available. Dr Rajeev, who we interviewed, suggested that people who respond to queries should

post some documents to substantiate their answer and the better the substantiation, the higher the rating the answer would get. Considering the fact that different institutes have different rules and laws, there needs to be a method to regularly update these laws and remove outdated ones, which is why anyone can post laws and rules, as long as they substantiate them with the requisite documentation.

Mentorship

Overview/analysis:

It can be daunting to enter the corporate world fresh out of college. Having a mentor to guide you through it is always helpful. Our forms and interviews have helped us realise that a majority of the students as well as the people new to their field do not have anyone to guide them through this transition and would like to use an app that could provide them with the opportunity to do so. Through our app, we aim to help such people connect with verified mentors and resolve any doubts that they may have regarding their future in the corporate world. From the interviews, we got several suggestions including making the app bilingual, allowing personal chat etc.

Question-wise analysis:

Q1 Have you been able to find someone in your field for guidance other than just college or job seniors?

The responses show that there are 54.2% people who have not been able to find out people for guidance other than college or job seniors and 6.8% people do not even know that they have or not been able to seek guidance. So this shows that 61% people have not been able to seek guidance. The interviews taken suggest that guidance by professionals helps a person learn many new things before it happens through their experience. It also suggests that people need guidance for many projects as well. So mentorship is important according to our responses.

Q2: Would you be willing to upload your resume and let people approach you for advice/ Are you willing to be a mentor with us?

The google form suggests that although 33.9% of people are ready to upload their resume and let people approach for advice, there are 28.8% who are not ready and 37.3% who are not even sure. So there are people who are not ready or not sure if they will be able to give advice. We need to make our app trustworthy and attract people to it to increase participation

Q3: Would you use an application/ platform where you can be guided by people with years of experience in that industry?

79.7% people are ready to use an application that makes them aware of their rights and provides them mentorship. The interview suggests that most of them are not aware of any application until now. Also, there are people who know about quora and use them but find it difficult to use. A few people have used LinkedIn for mentorship purposes but nothing other than these 2 apps.

Q4: Would you be willing to approach people by judging their resume?

The google form data suggest that 44.1% of people are ready to themselves approach people for advice. Although 22% say No and 33.9% people are unsure, the interview suggests that that this can be changed by creating an appealing and trustworthy app that makes approaching mentors easier.

2.3 Ideation and Low-fi prototyping

As is seen in the attached mind map (The link is available in the resources segment, Mind Map 1), there can be several different ways to increase awareness amongst workers and students regarding their rights. However, we believe our method may be the most practical. It allows them to learn as when it is required and not sort through irrelevant data. They are not bombarded with information and can learn their institute specific rights as well as general rights at their own pace. all this together led us to believe that our app could truly create a difference in the lives of the working population by educating them on these rights.

Following this, we created a Mind Map for the entire design process (The link is available in the resources segment, Mind Map 2.). This helped us organise our thoughts and come up with a systematic process to design the prototypes as well as map out the evaluation process.

Story Board: https://miro.com/app/board/uXjVOAdmX38=/?invite_link_id=347387790637

Low-Fi Prototype:

<https://docs.google.com/document/d/1ndHOzEx3IXjl2sEx9NMeuVymQh0MYeffiuDM2YQTolg/edit?usp=sharing>

2.4 High-fi prototyping

After the Low-Fi prototype was built, we started working on the High-Fi Prototype. It was built on Figma. The link for the file is attached below.

<https://www.figma.com/proto/d7Wwp6AwMxtVGHsJG0cjM/Hi-Fi?node-id=235%3A78&scaling=scale-down&page-id=0%3A1&starting-point-node-id=235%3A73&show-proto-sidebar=1>

2.5 Evaluation

Evaluation Plan

Step 1: Find a group of users. Two specific groups: students and workers. Ask them to test our prototype

Step 2: Create a google form with the following questions:

1. How did you like the app
2. Was the app easy to use?
3. Did you feel like any function required more details/information to make its use clear?
4. Was it difficult to remember what a button was there for?
5. Did you find all the relevant features present in said prototype?
6. Was the interface interesting and eye catching?
7. Was there any feature that you felt was unnecessary?
8. How would you rate the usability of the app?
9. did it fulfils your requirements efficiently?
10. Do you feel any safety issue regarding this app?
11. Kindly rate the overall experience

Step 3: Evaluate the responses and update the app accordingly.

Step 4: (Optional) Depending on the responses as well as time constraints, might repeat the process again

Execution

After preparing the plan, we created and floated a google form (link is available in the Resources segment) along with the link for our high fidelity prototype. We collected responses from all the important groups of stakeholders and analysed them. The analysis showed that most people were satisfied with the functions and options presented and liked the flow of the app. The overall rating averaged near 4 out of 5. There were a few recommendations for improvement, which are as follow:

Back buttons not included: People were not able to go back to the previous page and they got stuck on a single page. Every time they had to start running the app all over again to get to the previous page.

Colour theme of the app : Some mentioned about the app colour being brown, a little offsetting and preferred colours like red green to be included. But as we researched, the preferred get along colour palettes were the colour brown going well with the white background. Also as taught in the class, colours such as red and green might not work well with the text written inside and people might find it difficult to read.

Alignments of the buttons : A user observed the buttons of the product a little offtrack and suggested them to be aligned. We observed it and are looking to working on it and rectify it.

Management And Safety Of Data: We being unknown to our community might make them doubtful to share their details and other information that might be needful. To correct this we are working on a necessary linkage of mobile phones through OTP so that most accounts can be verified of the person using the app. As the mobile phones are linked with aadhar cards, a misuse might not be that easy and if done so we can trace down the wrong.

Some buttons not taking them to the mentioned page: As the product is in the initial stage we are modifying it to make our app more smooth and a great experience on a daily basis by carrying out meets and adding more linked pages. Since it is still a prototype, there are a few buttons which are just there to show future possibilities and are not yet linked to any page. It is a time taking process which will be corrected with day to day updates.

Iterations

After analysing the responses, we went over our prototype again and conducted three iterations to fix the things mentioned. In the first, we managed the alignment of the buttons which was mentioned by the users. Then, we reopened the form for a smaller number of people to get a feedback which helped us realise that there was in inconsistency in our search option, with there being different search bars on different pages. This was fixed in the second iteration. In the final iteration, we added back buttons according to user recommendations, which brought us to the end of our prototyping process

3. ANALYSIS AND FUTURE WORK

Analysis:

Over the past month, we conducted a significant amount of research regarding laws, mentorship, awareness and access to these. We conducted a survey to gather more information and on analysing the response realised how essential it was to help increase this awareness. We saw how many people suffer simply because they do not realise that what they're being subjected to or asked to do is against the law. We realised that people were often left confused about major life choices simply because they did not have the required guidance when it was needed. Through our survey we were able to analyse who to target and how to resolve this issue.

Prototyping the app helped us see how the design process truly works. We were able to differentiate between good and bad design and were able to learn how exactly to narrow down on a certain aspect and how to proceed further. The prototype helped us realise what features were essential in this app to increase usability and also attract people to it.

One flaw with our solution may be the lack of exposure. The app is available to everyone and is easy to use, however, it still limits the number of people who benefit from it. The app does help increase awareness about rights and provide mentorship opportunities, but only to those who are able to access it. For those who do not know about the app as well as for those who may not have the requisite hardware to access it, ways to learn about these issues and educate themselves are still lacking.

Future work:

There are several futuristic possibilities. The app needs to be developed and mentors need to be approached to start with. Information about rights needs to be collected and verified before uploading. A major feature which could be incorporated in future iterations is looking for a method to verify all the documents being uploaded and checking if they are authentic and applicable to the question/ query asked. There also needs to be a way to check the resumes of the people applying to be mentors and verify them. All in all, there are several possibilities for the future.

4. CONCLUSION

It is no secret that more often than not, people are unaware of their rights in the workplace and are often exploited because of this. Our app primarily focuses on reducing this exploitation and empowering workers. With Co-Part, people can now get whatever information they require within minutes and also start discussions regarding these to learn more. Now, information about your rights in the workplace are just one click away.

The second part helps deal with the confusion that many people face while making major decisions regarding their career simply because they do not have all the information required to make an informed decision. Co-Part helps connect such people to mentors with a significant amount of experience and help make sure that no one feels helpless or alone and always has someone to consult.

Our app focuses on making the lives of workers and students easier and help them transition to the corporate world without being exploited or afraid. Co-Part is our way of helping all those who may require it.

5. CONTRIBUTIONS

- Ideation: Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora
- Form Creation and Distribution: Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora
- Conduction of Interviews: Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora
- Define the problem, Background of the problem and motivation: Suvrat Prasad
- Stakeholders and their role, Existence of other such products: Piyush Kumar
- Limitations of current products, novelty of solution, Challenges: Aditi Singla, Vibhav Balhara
- Analysis and collation of findings from form and interviews: Anoushka Kumar, Yashila Arora
- Ideation and Low-fi prototyping: Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora
- High-fi prototyping: Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora
- Evaluation: Aditi Singla, Anoushka Kumar, Vibhav Balhara
- Storyboard: Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Yashila Arora
- Video : Aditi Singla, Anoushka Kumar, Piyush Kumar, Suvrat Prasad, Vibhav Balhara, Yashila Arora

6. RESOURCES

- Google survey form, available from
https://docs.google.com/forms/d/e/1FAIpQLSf5dei4ZyTRZUTGen5AO6af1ye3baOmTGUcdCrwP_e1YD5YA/viewform?usp=sf_link
- Interviews available from
<https://drive.google.com/drive/folders/1uGzSDtDzr8DCIZ2YoovFe5WsGAFHlt8y>
- Ideation Mind Map 1: for problem statement
https://miro.com/app/board/uXjVOBjL-hk=?invite_link_id=67335176432
- Ideation Mind Map 2: Design Process
https://miro.com/app/board/uXjVOAU1SiE=?invite_link_id=954875554008
- Low-Fi Prototype
<https://docs.google.com/document/d/1ndHOzEx3IXjI2sEx9NMeuVymQh0MYeffiuDM2YQTolg/edit?usp=sharing>
- Story Board: https://miro.com/app/board/uXjVOAdmX38=?invite_link_id=347387790637
- High-fi prototype: <https://www.figma.com/proto/d7Wwp6AwMxtVGHIsJG0cjM/HI-FI?node-id=235%3A78&scaling=scale-down&page-id=0%3A1&starting-point-node-id=235%3A73&show-proto-sidebar=1>
- Evaluation google form:
https://docs.google.com/forms/d/e/1FAIpQLSdYyYx65NsscFTrErp6E_fHXdxUOS-V8a3VvH3MN9WC2pHwxg/viewform?usp=sf_link

- Link to drive for video:

https://drive.google.com/drive/folders/1w_x6qnUa6PV2QuTISv1elrw9INf8ueOM?usp=sharing

7. REFERENCES

- Apurva Surve, What. Are The Rights of Employees in India? Law Trend, available from <https://lawtrend.in/what-are-the-rights-of-employees-in-india/> , accessed on March 20, 2022
- Ministry of Information and Broadcasting, Government of India. New Labour Code for New India, available from <https://labour.gov.in/labour-codes>, accessed on March 20, 2022
- Learn Design With Figma, available from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjTi4KosPj2AhVVlbcAHeRVCC0QFnoECAYQAQ&url=https%3A%2F%2Fwww.figma.com%2Fresources%2Flearn-design%2F&usg=AOvVaw1KePc49xX_S3GJ3lK3Sj88 , accessed on March 31,2022